DEP' ^TMENT OF ENVIRONMENT AND CONSERVA^TION
)IVISION OF WATER POLLUTION CONTROL
6TH FLOOR, L&C ANNEX, 401 CHURCH ST, NASHVILLE, TN 37243

Site: 46814

NOTICE OF INTENT (NOI)

for discharges of treated groundwater associated with

UNDERGROUND STORAGE TANK (UST) REMEDIATION

This application is for: ☒ New Permit ☐ Permit Reissuance ☐ Permit Modification

(If this NOI is submitted for Permit Modification provide the existing permit tracking number: TNG83____)

Site Name:	**Crossville Mobile 66**	County:	**Cumberland**
Street Address or Location:	**34 Executive Drive, Crossville, TN 38555**	*Latitude:	**35 59' 53" N**
		*Longitude:	**85 02' 41"W**
UST Site ID Number: 4-180042	Attach a site location (topographic) map		☒ Map attached

Owner or Operator: (the person or legal entity which controls site's operation; this may or may not be the same as the site name or the official contact name)
Tiger Enterprises, Inc. - John Robinson

1	Official Contact Person Name: (individual responsible for a site) **Mark D. Harper**	Title or Position: **Director of Engineering**		
	Mailing Address: **P.O. Box 149**	City: **Hartsville**	State: **TN**	Zip: **37074**
	Phone: **615-374-4745**	E-mail: **epharper@aol.com**		

2	Local Contact Person Name: (if appropriate, write "same as #1") **Same as #1**	Title or Position:		
	Site Address: (this may or may not be the same as street address)	Site City:	State: **TN**	Zip:
	Phone:	E-mail:		

Write in the box (to the right) or circle the number (above) to indicate where to send correspondence: **1**

UST REMEDIATION FACILITY DESCRIPTION

Treated groundwater from site enters following stream(s) and/or lake(s): (for each outfall, give names and stream miles)
Outfall flows South in ditch for 443' into Obed River

No.of outfalls: **1**

List type of product(s) currently or previously stored in tanks located at the site:
Gasoline

Description of contamination, assessment study, extent of contamination, etc. Attach additional pages if necessary.
Appendix A, Site Status Monitoring Report

Description and design capacity of treatment process and facilities.
Capacity 40 gallons per hour, Appendix B, System Information Packet.

Select discharge type (continuous means more than 4 days at a time): ☒ Continuous ☐ Intermittent

Expected starting date for groundwater treatment, and estimated life of remediation project:
Expected starting date is approximately January 16, 2012, estimated life is 3 years or less.

CERTIFICATION AND SIGNATURE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Mark D. Harper, P.E. Dir. of Eng. [signature] 12/14/11

Printed Name — Official Title — Signature — Date

STATE USE ONLY

Received Date	Reviewer	EFO	NOC Date	Tracking No. TNG83
	Impaired Receiving Stream	High Quality Water		T & E Aquatic Fauna

Submit the original of the completed and signed form to:
UST NOI Processing
Tennessee Division of Water Pollution Control
6th Floor L&C Annex, 401 Church Street
Nashville, TN 37243

DEP ' 'RTMENT OF ENVIRONMENT AND CONSERVA "ION
)IVISION OF WATER POLLUTION CONTROL
6TH FLOOR, L&C ANNEX, 401 CHURCH ST, NASHVILLE, TN 37243

NOTICE OF INTENT (NOI)

for discharges of treated groundwater associated with

UNDERGROUND STORAGE TANK (UST) REMEDIATION

	Impaired Receiving Stream	High Quality Water	T & E Aquatic Fauna

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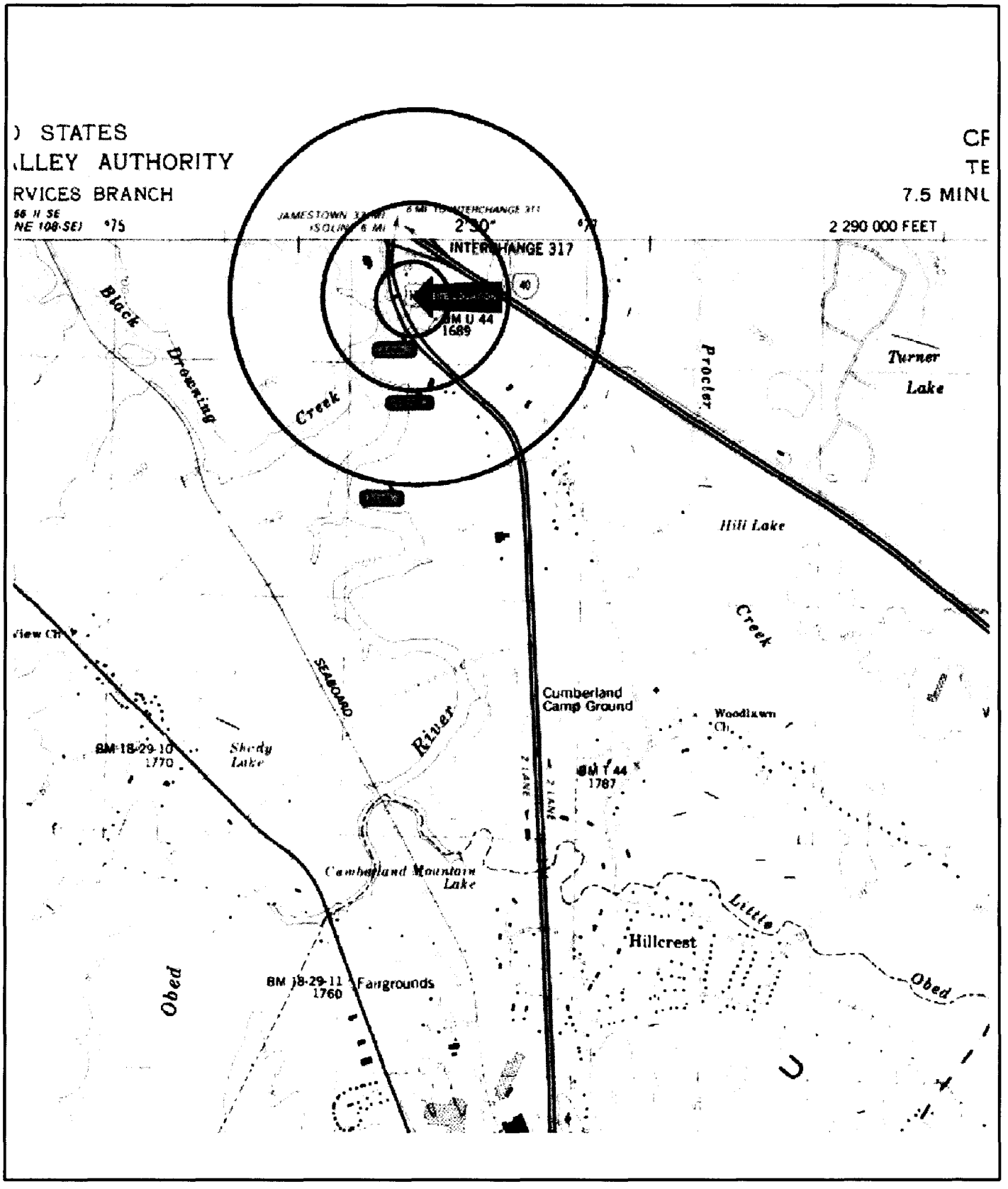


COLOR TOPOGRAPHIC MAP

COMPLIANCE ENGINEERING
545 East Main Street P.O. Box 149
Hartsville, TN 37074-0149

CROSSVILLE MOBILE 66
UST ID# 4 - 180042

Sheet No.:	
Date:	
Filename:	
Drawn By:	
Checked By:	

Appendix A

4-180042
MAR 15 2006

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
4th Floor, L & C Tower
401 Church Street
Nashville, Tennessee 37243-1541

March 9, 2006

Mr. John Robinson
Tiger Enterprises
205 East Race Street
Kingston, TN 37763

RE: Petition for a Site-Specific Standard (TGD-017) – **Approved**
Crossville Mobil 66
34 Executive Drive, Crossville
Facility ID #4-180042, Cumberland County

Dear Mr. Robinson:

The Division of Underground Storage Tanks (Division) has reviewed the Exposure Assessment Report dated February 20, 2006 for the above referenced facility. Based on all available information, the Division grants the soil and groundwater site-specific standard for the following chemicals:

Site-Specific Clean-Up Levels		
Chemical	Soil Clean-Up Levels (ppm)	Groundwater Clean-Up Levels (ppm)
Benzene	4.16	0.973
Toluene	62.5	39.6
Ethylbenzene	1,320	94.8
Xylenes	88.5	32.7
MtBE	366.0	1,610
Naphthalene	403.0	31.0

The standard only applies under the conditions of the current exposure assessment to in-situ contamination.

Based on the presence of benzene above action limits in the groundwater, Tiger Enterprises has several options that may be pursued:

- Option one consists of specific additional measures (i.e., soil gas survey) that will result in a more cost effective approach and/or faster contamination case closure. A detailed plan and cost proposal shall be submitted to the Division for approval.

- Option two consists of source removal (i.e., removal of free product, excavation of contaminated soil, etc.). A detailed plan and cost proposal shall be submitted to the Division for approval.

- Option three consists of risk reduction (i.e., supplying a permanent source of potable water to replace an impacted drinking water supply; re-routing utility lines or replacing vulnerable portions of utility lines; etc.). A detailed plan and cost proposal shall be submitted to the Division for approval.

- Option four consists of institutional controls (i.e., filing a Notice of Land Use Restrictions in the register of deeds office in the appropriate county). A detailed plan and cost proposal shall be submitted to the Division for approval.

- Option five consists of engineering controls (i.e., design and installation of a vapor barrier, ventilation system, etc.). A detailed plan and cost proposal shall be submitted to the Division for approval.

- Option six consists of the application of an advanced risk-based model (i.e., additional site evaluation, characterization, and risk) which incorporates detailed site-specific data. A detailed plan and cost proposal shall be submitted to the Division for approval.

- Option seven consists of the preparation of a Corrective Action Plan (CAP). The CAP shall be prepared and submitted in accordance with the July 1, 2004 CAP Guidelines and in accordance with a schedule established by the Division.

The Cookeville Field Office shall be notified, in writing, by April 10, 2006 which option Tiger Enterprises intends to pursue to meet the approved site specific clean-up levels.

Submit a copy of all correspondence and reports to this office and original reports, including original laboratory sheets, and correspondence to:

Cookeville Field Office
Division of Underground Storage Tanks
1221 South Willow Avenue
Cookeville, TN 38506

If you have any questions concerning this correspondence, contact Rita Thompson at 931-432-7629.

Sincerely,

Stanley R. Boyd
Director
Division of Underground Storage Tanks

c: Mr. Tony Parker – DEPA, Inc.
UST-NCO, Technical File
UST Cookeville Field Office

4180042CO-004030306

SITE STATUS MONITORING REPORT
(BIENNIAL RISK MONITORING)

CROSSVILLE MOBIL (66)
CROSSVILLE, TENNESSEE
FACILITY ID #4-180042

Prepared for:

Mr. John Robinson
Tiger Enterprises
205 East Race Street
Kingston, Tennessee

June 15, 2011

Prepared by:

PRO TECH SERVICES, LLC
P.O. Box 181 • Cookeville, Tennessee 38503
Phone: (931) 498-6506

Table of Contents

A. PROGRESS

Mr. Robinson was directed to conduct a Biennial Risk Monitoring event at the facility. The letter stated that the Division is now able to obligate Fund dollars at this facility, and requested that monitoring wells MW-1A, MW-2, MW-3A, and MW-5A be sampled.

B. PROBLEMS

Free product was not observed during this samping event in MW-5A, however the sample appeared to be contaminated.

C. GROUNDWATER MONITORING

All groundwater elevations and analytical results are detailed in Table 2 and Table 3..

D. VAPOR MONITORING

No vapors were encountered during the current monitoring event in any of the storm water sewers located near the site.

E. EMISSIONS MONITORING

N/A

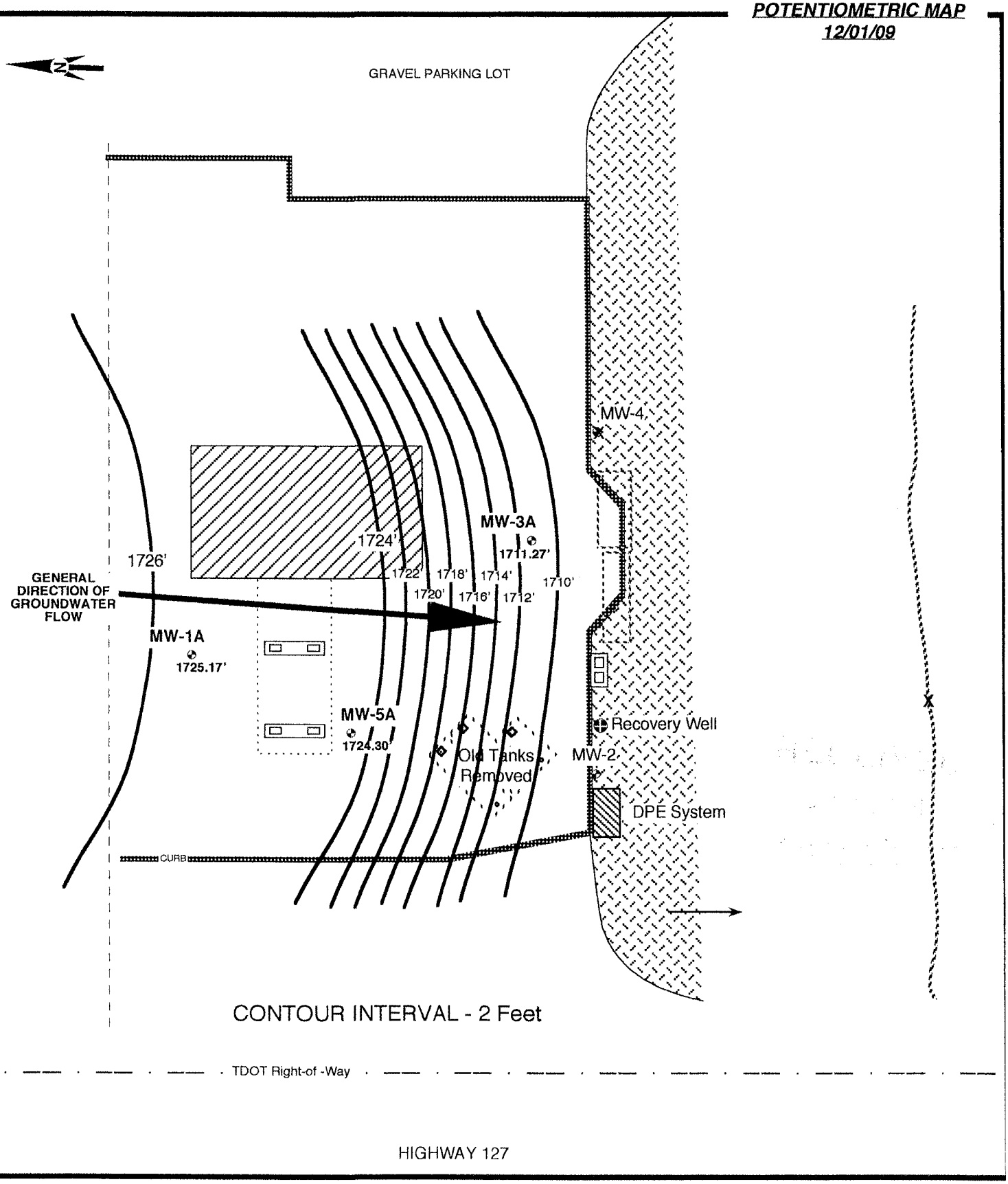
F. SOIL MONITORING

N/A

G. ADDITIONAL INFORMATION

CROSSVILLE 66 (MOBIL)
HIGHWAY 127 & I-40
CROSSVILLE, TENNESSEE
FACILITY ID #4-180042

POTENTIOMETRIC MAP
12/01/09



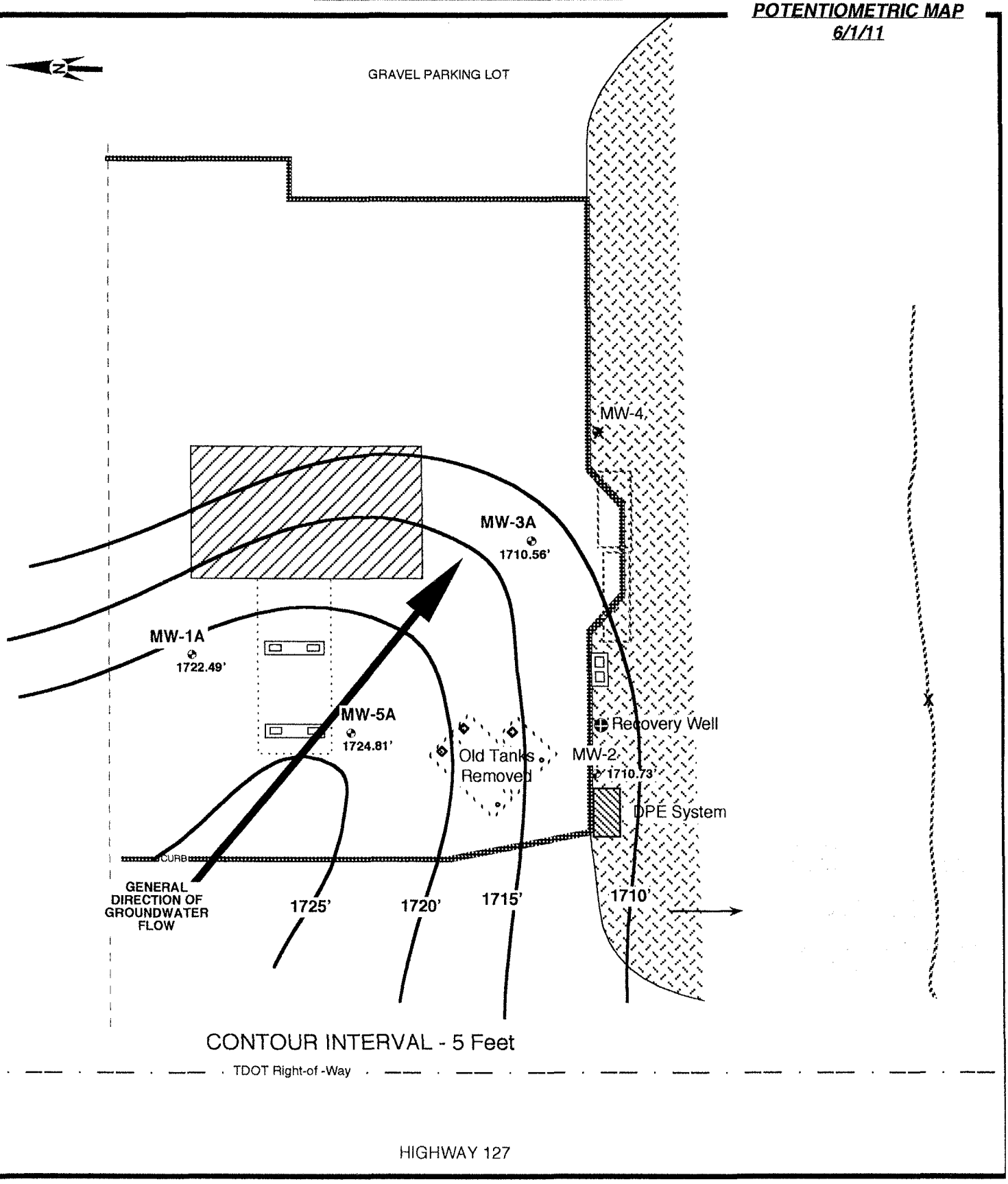
- MONITORING WELL LOCATION
X - SEEP SAMPLING LOCATION

SCALE : 1" = 40 FEET
0 5' 10' 20' 30' 40'

FIGURE 1

CROSSVILLE 66 (MOBIL)
HIGHWAY 127 & I-40
CROSSVILLE, TENNESSEE
FACILITY ID #4-180042

POTENTIOMETRIC MAP
6/1/11



◔ - MONITORING WELL LOCATION

SCALE : 1" = 40 FEET
0 5' 10' 20' 30' 40'

FIGURE 2

MONITORING REPORT
Table 1

TN UST FACILITY ID NUMBER: **4-180042**

Reporting Period	From: Startup	From: 1/1/99	From: 6/30/99	From: 1/1/00 *
	To: 1/1/99	To: 6/30/99	To: 12/31/99	To: 6/30/00
Total Gallons Pumped Per Period	44,719.7	39,586.7	4,853.5	-0-
Cumulative Total-Gallons Pumped	44,719.7	84,306.4	89,159.9	89,159.9
% Time System Was Down	10%	10%	15%	50%+
Gallons of Free Product Removed	N/A	N/A	N/A	~2 gallons**
Cumulative Gallons of Free Product Removed	N/A	N/A	N/A	~2 gallons

The Reporting Period described above shall be a six month interval.

* Water table drop-no water pumped-only vapor extraction ** 68 gallons of contaminated water was removed

Reporting Period	From: 6/30/00	From: 1/1/01	From: 7/1/01	From: 1/1/02
	To: 12/31/00	To: 6/30/01	To: 12/31/01	To: 6/30/02
Total Gallons Pumped Per Period	60.4	0	8,674.7	21,542.0
Cumulative Total-Gallons Pumped	89,220.3	89,220.3	97,895.0	119,437.0
% Time System Was Down	10%+	10%+	10%++	15%*
Gallons of Free Product Removed	0	0	0	0.25
Cumulative Gallons of Free Product Removed	0	~4 gallons	~4 gallons	~4.25 gallons

+ Recovery Well Dry-Sporadic Recovery • ++ System Overhaul * - Carbon Filter Change-out

Reporting Period	From: 6/30/02	From: 4/1/03	From: 10/1/03	
	To: 3/31/03	To: 9/30/03	To: 3/31/04	
Total Gallons Pumped Per Period	11,878	8,393	6,787	
Cumulative Total-Gallons Pumped	131,315	139,708	146,495	
% Time System Was Down	15%	3%	5%++	
Gallons of Free Product Removed	0	0	0	
Cumulative Gallons of Free Product Removed	~4.25 gal	~4.25 gal	~4.25 gal	

+ Recovery Well Dry-Sporadic Recovery • ++ System Overhaul * - Carbon Filter Change-out

MONITORING REPORT
Table 1 (cont'd)

Month	Jan-99	Feb-99	Mar-99	Apr-99	May-99	June-99
# of Site Visits per Month	3	3	3	5	6	6
Electrical Cost per Month	$195.91	$190.95	$143.70	$141.68	$105.86	$146.92
Cumulative Electrical Costs To Date	$851.99	$1,042.94	$1,186.64	$1,328.32	$1,434.18	$1,581.10
All Costs per Month	$66.24	$126.24	$60.00	$100.00	$4,567.42	$737.50
Cumulative Costs To Date (Monitoring and O & M)	$3,323.22	$3,449.46	$3,509.46	$3,609.46	$8,176.88	$8,914.38

The Reporting Period for O & M costs is monthly.

Month	July-99	Aug-99	Sept-99	Oct-99	Nov-99	Dec-99
# of Site Visits per Month	6	4	2	2	2	5
Electrical Cost per Month	$146.92	$140.68	$92.98	$74.45	$13.29	$53.44
Cumulative Electrical Costs To Date	$1,728.02	$1,868.70	$1,961.68	$2,036.13	$2,049.42	$2,102.86
All Costs per Month	$468.35	$966.20	$418.75	$490.79	$75.00	$342.50
Cumulative Costs To Date (Monitoring and O & M)	$9,382.73	$10,348.93	$10,767.68	$11,258.47	$11,333.47	$11,675.97

Month	Jan-00	Feb-00	Mar-00	Apr-00	May-00	June-00
# of Site Visits per Month	2	1	1	2	1	1
Electrical Cost per Month	$39.88	$52.00	$38.91	$10.81	$10.81	$11.32
Cumulative Electrical Costs To Date	$2,142.74	$2,194.74	$2,233.65	$2,244.46	$2,255.27	$2,266.59
All Costs per Month	$316.79	$35.00	$35.00	$1,325.00	$52.35	$35.00
Cumulative Costs To Date (Monitoring and O & M)	$11,992.76	$12,027.76	$12,062.76	$13,387.76	$13,440.11	$13,475.11

MONITORING REPORT
Table 1 (cont'd)

Month	Jul-00	Aug-00	Sept-00	Oct-00	Nov-00	Dec-00
# of Site Visits per Month	1	2	1	1	2	1
Electrical Cost per Month	$10.81	$11.32	$22.64	-$1.02	$10.30	$13.84
Cumulative Electrical Costs To Date	$2,267.59	$2,278.91	$2,301.55	$2,300.53	$2,310.83	$2,324.67
All Costs per Month	$110.00	$1,331.06	$55.00	$55.00	$1,026.32	$78.42
Cumulative Costs To Date (Monitoring and O & M)	$13,585.11	$14,916.17	$14,971.17	$15,026.17	$16,052.49	$16,130.91

Month	Jan-01	Feb-01	Mar-01	Apr-01	May-01	June-01
# of Site Visits per Month	0	0	0	1	0	0
Electrical Cost per Month	$52.08	$64.55	$50.02	$53.31	$48.04	$12.02
Cumulative Electrical Costs To Date	$2,376.75	$2,441.30	$2,491.32	$2,544.63	$2,592.67	$2,604.69
All Costs per Month	0	0	0	$1,655.00	0	$38.08
Cumulative Costs To Date (Monitoring and O & M)	$16,130.91	$16,130.91	$16,130.91	$17,785.91	$17,785.91	$17,823.99

Month	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01
# of Site Visits per Month	0	4	0	3	8	5
Electrical Cost per Month	$11.73	$11.73	$11.75	$12.11	$12.93	$271.97
Cumulative Electrical Costs To Date	$2,616.42	$2,628.15	$2,639.90	$2,652.01	$2,664.94	$2,936.91
All Costs per Month	0	$2,555.20	0	$1,200.09	$2,987.37	$990.22
Cumulative Costs To Date (Monitoring and O & M)	$17,823.99	$20,379.19	$20,379.19	$21,579.28	$24,566.65	$25,556.87

MONITORING REPORT
Table 1 (cont'd)

Month	Jan-02	Feb-02	Mar-02	Apr-02	May-02	June-02
# of Site Visits per Month	5	5	7	4	4	4
Electrical Cost per Month	$175.28	$171.97	$119.88	$104.66	$10.89	$55.53
Cumulative Electrical Costs To Date	$3,112.19	$3,284.16	$3,404.04	$3,508.70	$3,519.59	$3,575.12
All Costs per Month	$1,020.15	$4,328.29	$2,412.54	$907.87	$1,051.08	$1,016.60
Cumulative Costs To Date (Monitoring and O & M)	$26,577.02	$30,905.31	$33,317.85	$34,225.72	$35,276.80	$36,293.40

Month	July-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02
# of Site Visits per Month	5	4	4	3	3	1
Electrical Cost per Month	$128.08	$113.79	$190.75	$18.99	$42.78	$174.38
Cumulative Electrical Costs To Date	$3,703.20	$3,816.99	$4,007.74	$4,026.73	$4,069.51	$4,243.89
All Costs per Month	$1,029.79	$1,134.21	$2,032.93	$896.53	$772.67	$113.68
Cumulative Costs To Date (Monitoring and O & M)	$37,323.19	$38,457.40	$40,490.33	$41,386.86	$42,159.53	$42,273.21

Month	Jan-03	Feb-03	Mar-03	Apr-03	May-03	June-03
# of Site Visits per Month	4	4	5	8	5	5
Electrical Cost per Month	$175.59	$179.80	$100.86	$107.72	$105.65	$166.37
Cumulative Electrical Costs To Date	$4,419.48	$4,599.28	$4,700.14	$4,807.86	$4,913.51	$5,079.88
All Costs per Month	$631.46	$298.20	$594.60	$3,842.02	$797.76	$1,112.32
Cumulative Costs To Date (Monitoring and O & M)	$42,904.67	$43.202.87	$43,797.47	$47,639.72	$48,437.48	$49,549.80

MONITORING REPORT
Table 1 (cont'd)

Month	July-03	Aug-03	Sept-03	Oct-03	Nov-03	Dec-03
# of Site Visits per Month	6	4	6	5	2	2
Electrical Cost per Month	$138.44	$156.37	$136.94	$119.18	$144.85	$148.42
Cumulative Electrical Costs To Date	$5,218.32	$5,374.69	$5,511.63	$5,630.81	$5,775.66	$5,924.08
All Costs per Month	$1,141.75	$753.76	$3,664.12	$2,321.66	$330.70	-----
Cumulative Costs To Date (Monitoring and O & M)	$50,691.55	$51,445.31	$55,109.43	$57,431.09	$57,761.79	$57,761.79

Month	Jan-04	Feb-04	Mar-04	June-05	Dec-09	June-11
# of Site Visits per Month	**2**	**2**	**7**	**1**	**1**	**1**
Electrical Cost per Month	($204.54)	($138.02)	($51.14)	$207.28*	----	----
Cumulative Electrical Costs To Date	$5,719.54	$5,581.52	$5,530.38	$5,737.66	----	----
All Costs per Month	-----	$467.47	$5,485.72	$1,289.38	$1,375.41	$1,212.80
Cumulative Costs To Date (Monitoring and O & M)	$57,761.79	$58,229.26	$63,714.98	$65,004.36	$66,379.77	$67,592.57

Note: Negative electrical costs were due to previous over-charges by Volunteer Energy

* Represents electric costs to maintain heat in trailer to prevent freezing during shutdown(Oct2004 to date)

Table 2. Water Level Data

Well # (Depth)	Date Measured	Depth to Water	Well Elevation	Groundwater Elevation
MW-1A (27')	01/30/06	15.10'	1737.85'	1722.75'
----	12/01/09	12.68'	---	1725.17'
----	**06/01/11**	**15.36'**	**---**	**1722.49'**
MW-2 (32')	09/16/03	26.07'	1736.36'	1710.29'
----	03/10/04	25.59'	---	1710.77'
----	06/16/05	26.06'	---	1710.30'
----	12/01/09	24.71'	---	1711.65'
----	**06/01/11**	**25.63'**	**---**	**1710.73'**
MW-3A (32')	01/30/06	26.58'	1736.15'	1709.57'
----	12/01/09	24.36'	----	1711.27'
----	**06/01/11**	**25.59'**	**----**	**1710.56'**
MW-4 (30')	09/16/03	24.42'	1735.24'	1710.82'
----	03/10/04	21.74'	---	1713.50'
----	06/16/05	Well destroyed	during site	renovation
MW-5A (30')	01/30/06	16.73'	----	1720.72'
----	12/01/09	13.15'	----	1724.30'
----	**06/01/11**	**12.64'**	**----**	**1724.81'**

Water levels measured with Electronic Water Level Indicator

Table 3. Analytical Results - Groundwater

Sample	Date Sampled	Benzene	Ethylbenzene	Toluene	Total Xylenes	MTBE	Naphthalene
MW-1	03/10/04	11.8	2.85	ND	5.37	0.130	0.266
MW-1A	01/30/06	0.0723	0.115	ND	ND	0.399	0.0766
----	12/01/09	Not	sampled	----	----	----	----
----	**06/01/11**	**0.0405**	**0.0376**	**0.00729**	**0.0282**	**0.0338**	**0.00659**
MW-2	03/10/04	0.580	2.09	ND	2.47	1.52	1.22
----	06/16/05	0.590	0.531	ND	0.406	0.370	0.342
----	12/01/09	0.979	0.557	ND	ND	0.184	0.239
----	**06/01/11**	**0.904**	**0.440**	**ND**	**ND**	**0.138**	**0.0950**
MW-3A	01/30/06	0.564	0.256	ND	0.120	0.729	0.107
----	12/01/09	3.65	1.34	ND	1.81	0.472	0.378
----	**06/01/11**	**3.23**	**1.07**	**ND**	**1.602**	**0.460**	**0.373**
MW-4	03/10/04	ND	ND	ND	ND	0.005	0.0190
----	06/16/05	Well	destroyed	during	site	----	renovation
MW-5	03/10/04	5.44	1.59	0.935	0.630	0.720	0.855
MW-5A	01/30/06	2.70	2.23	1.59	4.71	3.41	0.676
----	12/01/09	4.00	2.50	3.79	5.87	0.594	0.773
----	**06/01/11**	**3.14**	**2.54**	**9.20**	**11.31**	**0.265**	**0.988**

All results are reported in parts per million
ND - not detectable above the minimum detection limit

SIGNATURE PAGE

A signature page, as shown below, shall be attached to the Site Status Monitoring Report. The page shall be signed by the owner/operator of the UST system (or authorized representative within the organization) and a registered professional geologist under the Tennessee Geologist Act (*T.C.A. §62-36-101 et seq.*), or a registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules(*T.C.A.§62-2-101et seq.*).

We, the undersigned, certify under penalty of law, including but not limited to penalties for perjury, that the information contained in this report form and on any attachments, is true, accurate and complete to the best of our knowledge, information, and belief. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for intentional violations.

John Robinson	_____	_____
Owner/Operator. (Print name)	Signature	Date

Note: Each of the above signatures shall be notarized separately with the following statement.

STATE OF _____ COUNTY OF _____

Sworn to and subscribed before me by _____on this date _____.

My commission expires _____.

_____	_____	_____
Notary Public (Print name)	Signature	Date

Stamp/Seal

SIGNATURE PAGE

A signature page, as shown below, shall be attached and signed by a registered professional geologist under the Tennessee Geologist Act (*T.C.A. §62-36-101 et seq.*), or a registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules(*T.C.A.§62-2-101et seq.*).

We, the undersigned, certify under penalty of law, including but not limited to penalties for perjury, that the information contained in this report form and on any attachments, is true, accurate and complete to the best of our knowledge, information, and belief. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for intentional violations.

James A. Parker, P.G. — P.G. or P.E. (Print name)

Signature

6/15/11 — Date

TN-0347
Tennessee Registration #

Note: Each of the above signatures shall be notarized separately with the following statement.

STATE OF Tennessee COUNTY OF White

Sworn to and subscribed before me by James A. Parker on this date 6/15/11.

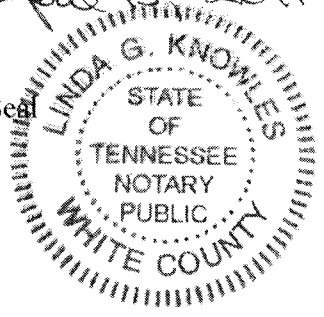
My commission expires June 25, 2014.

Linda G. Knowles — Notary Public (Print name)

Signature

Date April 15, 2011

Stamp/Seal



APPENDIX A

Certificates of Analysis

TEC Environmental Laboratories, Inc.

Date: *08-Jun-11*

CLIENT:	Pro Tech Services, LLC	**Facility ID:**	Crossville Mobil (66)
Lab Order:	11060215	**Facility ID Number:**	4-180042
Client Sample ID:	MW-1A	**Collection Date:**	6/1/2011
Lab ID:	11060215-01	**Matrix:**	AQUEOUS

Analyses	Result	Limit	Units	Date Analyzed
BTEX BY GC/MS		**SW8260B**		Analyst: **TLM**
Benzene	0.0405	0.00500	mg/L	6/7/2011 11:47:00 AM
Ethylbenzene	0.0376	0.00500	mg/L	6/7/2011 11:47:00 AM
M,P-Xylene	0.0282	0.0100	mg/L	6/7/2011 11:47:00 AM
MTBE	0.0338	0.00500	mg/L	6/7/2011 11:47:00 AM
Naphthalene	0.00659	0.00500	mg/L	6/7/2011 11:47:00 AM
O-Xylene	ND	0.00500	mg/L	6/7/2011 11:47:00 AM
Toluene	0.00729	0.00500	mg/L	6/7/2011 11:47:00 AM
Surr: 4-Bromofluorobenzene	101	50-150	%REC	6/7/2011 11:47:00 AM
Surr: Dibromofluoromethane	93.5	50-150	%REC	6/7/2011 11:47:00 AM
Surr: Toluene-d8	109	50-150	%REC	6/7/2011 11:47:00 AM

Reviewed By: Billie J. Haynes

Billie Haynes

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

TEC Environmental Laboratories, Inc.

Date: *08-Jun-11*

CLIENT:	Pro Tech Services, LLC	**Facility ID:**	Crossville Mobil (66)
Lab Order:	11060215	**Facility ID Number:**	4-180042
Client Sample ID:	MW-2	**Collection Date:**	6/1/2011
Lab ID:	11060215-02	**Matrix:**	AQUEOUS

Analyses	Result	Limit	Units	Date Analyzed
BTEX BY GC/MS		**SW8260B**		Analyst: **TLM**
Benzene	0.904	0.0250	mg/L	6/7/2011 12:53:00 PM
Ethylbenzene	0.440	0.0250	mg/L	6/7/2011 12:53:00 PM
M,P-Xylene	ND	0.0500	mg/L	6/7/2011 12:53:00 PM
MTBE	0.138	0.0250	mg/L	6/7/2011 12:53:00 PM
Naphthalene	0.0950	0.0250	mg/L	6/7/2011 12:53:00 PM
O-Xylene	ND	0.0250	mg/L	6/7/2011 12:53:00 PM
Toluene	ND	0.0250	mg/L	6/7/2011 12:53:00 PM
Surr: 4-Bromofluorobenzene	108	50-150	%REC	6/7/2011 12:53:00 PM
Surr: Dibromofluoromethane	103	50-150	%REC	6/7/2011 12:53:00 PM
Surr: Toluene-d8	112	50-150	%REC	6/7/2011 12:53:00 PM

Reviewed By: Billie J. Haynes

Billie Haynes

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

TEC Environmental Laboratories, Inc.

Date: *08-Jun-11*

CLIENT:	Pro Tech Services, LLC	**Facility ID:**	Crossville Mobil (66)
Lab Order:	11060215	**Facility ID Number:**	4-180042
Client Sample ID:	MW-3A	**Collection Date:**	6/1/2011
Lab ID:	11060215-03	**Matrix:**	AQUEOUS

Analyses	Result	Limit	Units	Date Analyzed
BTEX BY GC/MS		**SW8260B**		Analyst: **TLM**
Benzene	3.23	0.250	mg/L	6/6/2011 9:16:00 PM
Ethylbenzene	1.07	0.250	mg/L	6/6/2011 9:16:00 PM
M,P-Xylene	1.34	0.500	mg/L	6/6/2011 9:16:00 PM
MTBE	0.460	0.250	mg/L	6/6/2011 9:16:00 PM
Naphthalene	0.373	0.250	mg/L	6/6/2011 9:16:00 PM
O-Xylene	0.262	0.250	mg/L	6/6/2011 9:16:00 PM
Toluene	ND	0.250	mg/L	6/6/2011 9:16:00 PM
Surr: 4-Bromofluorobenzene	103	50-150	%REC	6/6/2011 9:16:00 PM
Surr: Dibromofluoromethane	112	50-150	%REC	6/6/2011 9:16:00 PM
Surr: Toluene-d8	116	50-150	%REC	6/6/2011 9:16:00 PM

Reviewed By: Billie J. Haynes

Billie Haynes

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Pro Tech Services, LLC

P.O. Box 181
Cookeville, TN 38503

CHAIN OF CUSTODY & ANALYSIS REQUEST FORM

FACILITY: Crossville Mobil (66)

FACILITY ID #: 4-180042

LOCATION: Crossville, Tennessee

SPECIAL INSTRUCTIONS :
Send results to: Pro Tech Services, LLC

email results to: parkert@blomand.net

POSSIBLE SAMPLE HAZARDS:
LOW TOX

SAMPLER:
T. Parker

NORMAL X
RUSH
OTHER

4°C
IP

ANALYSES REQUIRED

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE TYPE	NUMBER OF CONTAINERS	BTEX (EPA 8260B)	Naphthalene	MTBE	EPH	Fe & Mn	Cadmium	Total Chromium	Total Lead	Silver	Zinc	PAH
MW-1A	6/1/11	10:30	Water	2	X	X	X								
MW-2	6/1/11	10:45	Water	2	X	X	X								
MW-3A	6/1/11	10:55	Water	2	X	X	X								
MW-5A	6/1/11	11:20	Water	2	X	X	X								

RELINQUISHED BY : (SIGNATURE)	DATE/TIME	RECEIVED BY : (SIGNATURE)	RELINQUISHED BY : (SIGNATURE)	DATE/TIME	RECEIVED BY : (SIGNATURE)
Daniel A Parker					
RELINQUISHED BY : (SIGNATURE)	DATE/TIME	RECEIVED BY : (SIGNATURE)	RELINQUISHED BY : (SIGNATURE)	DATE/TIME	RECEIVED BY : (SIGNATURE)
				6/2/11 0940	B. Schmidt

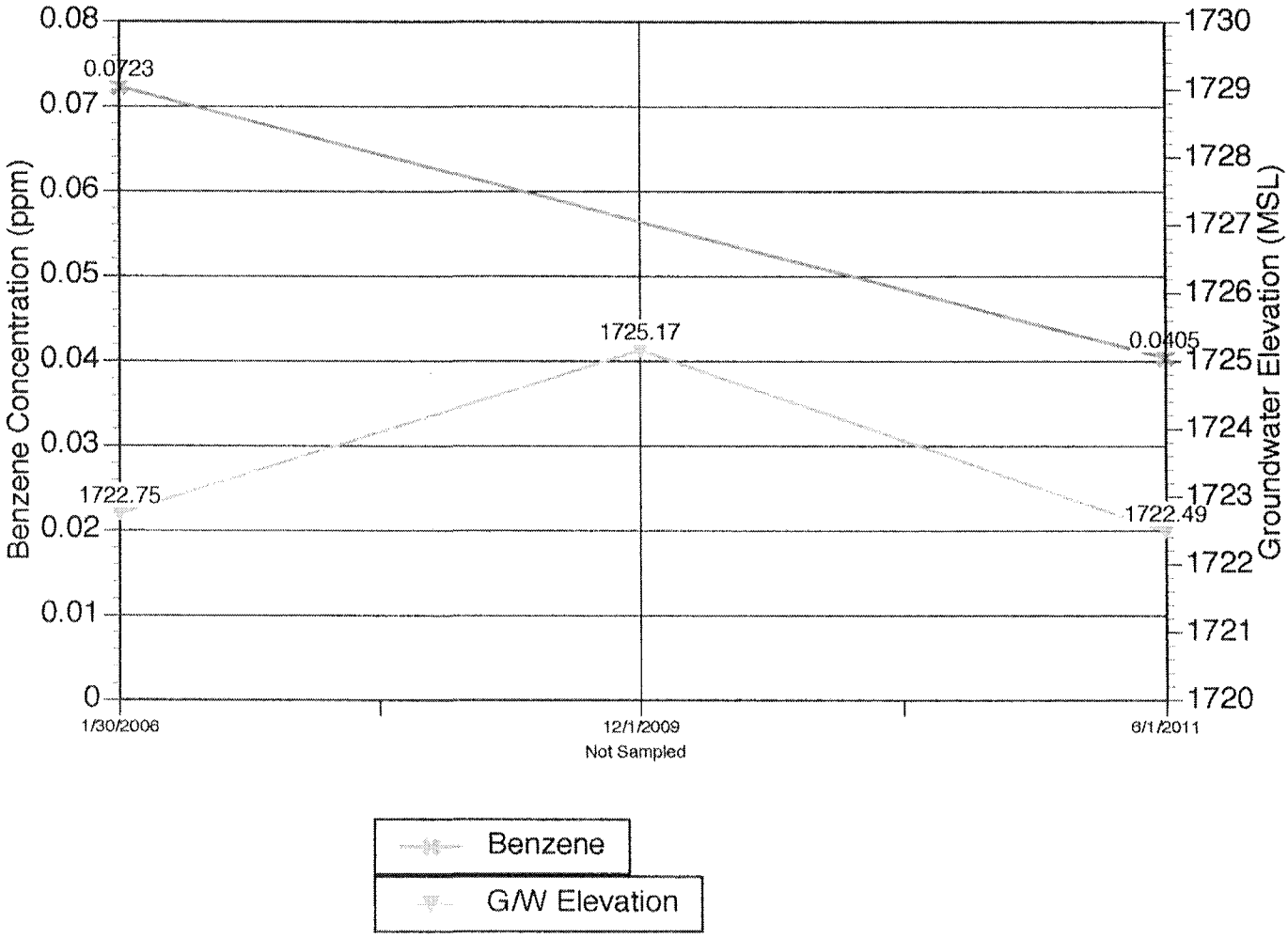
APPENDIX B

Monitoring Graphs

CROSSVILLE MOBIL (66)
Crossville, Tennessee
Facility I.D. #4-180042

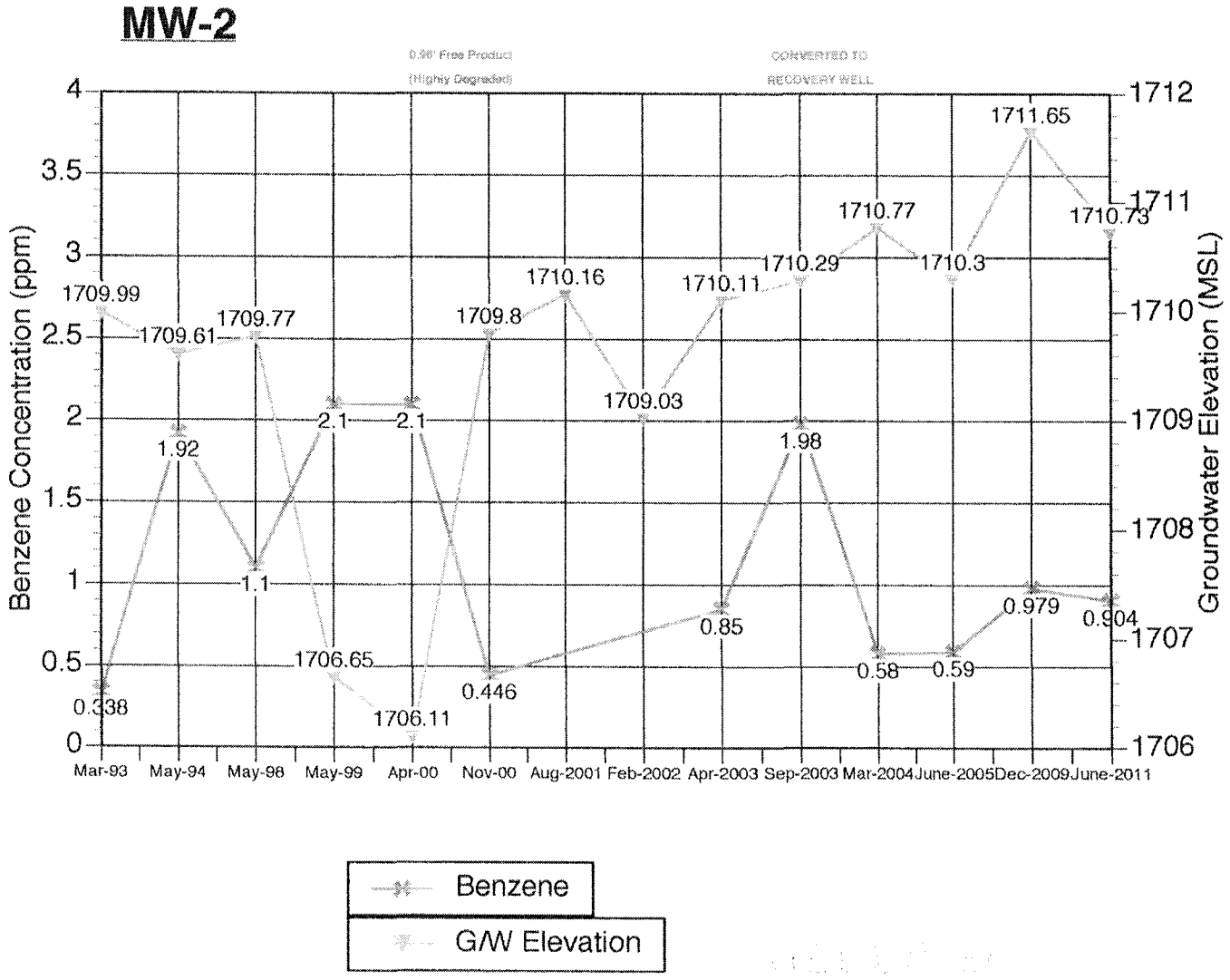
Site Status Monitoring
6/1/11

MW-1A



CROSSVILLE MOBIL (66)
Crossville, Tennessee
Facility I.D. #4-180042

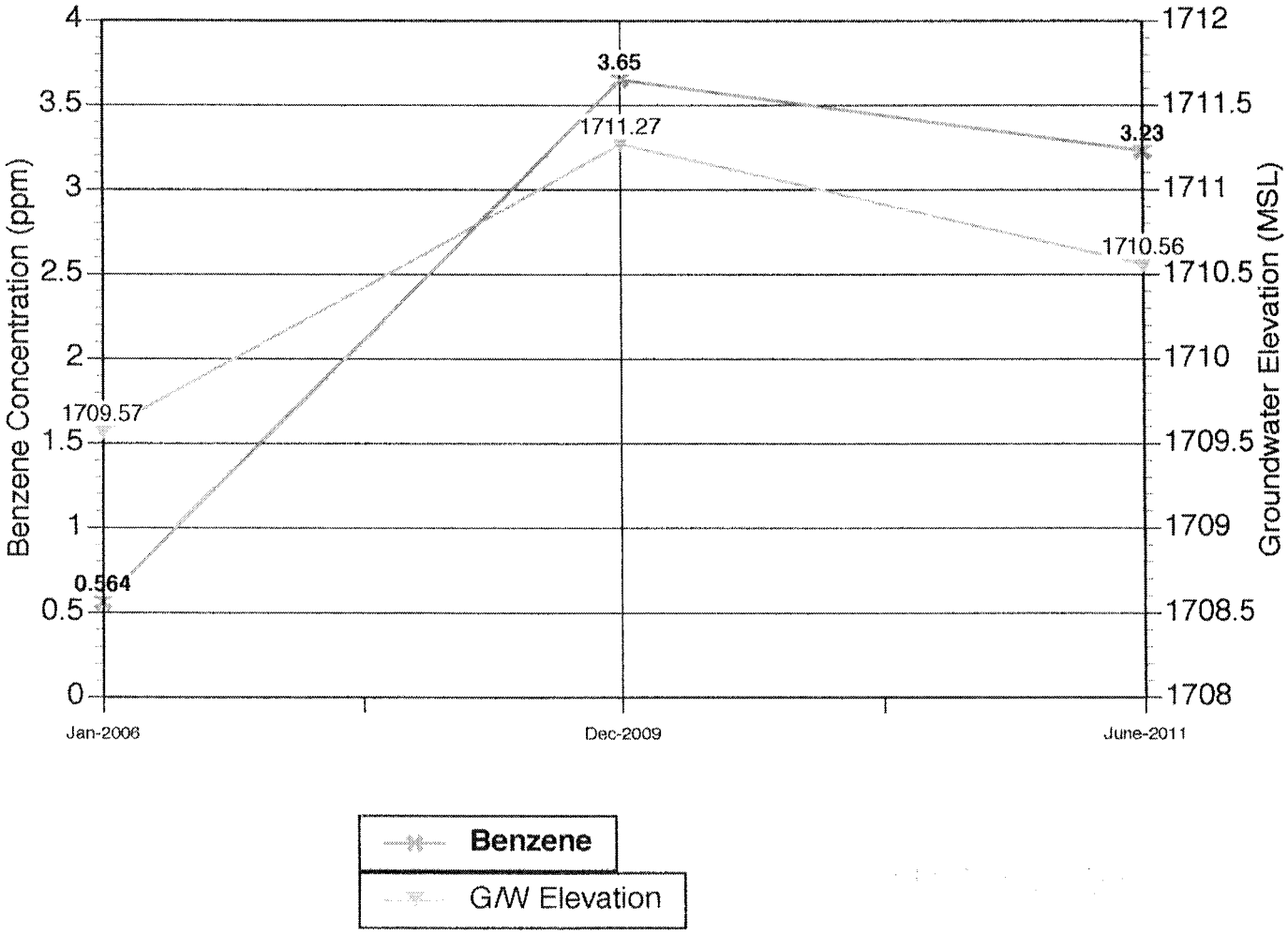
Site Status Monitoring
6/1/11



CROSSVILLE MOBIL (66)
Crossville, Tennessee
Facility I.D. #4-180042

Site Status Monitoring
6/1/11

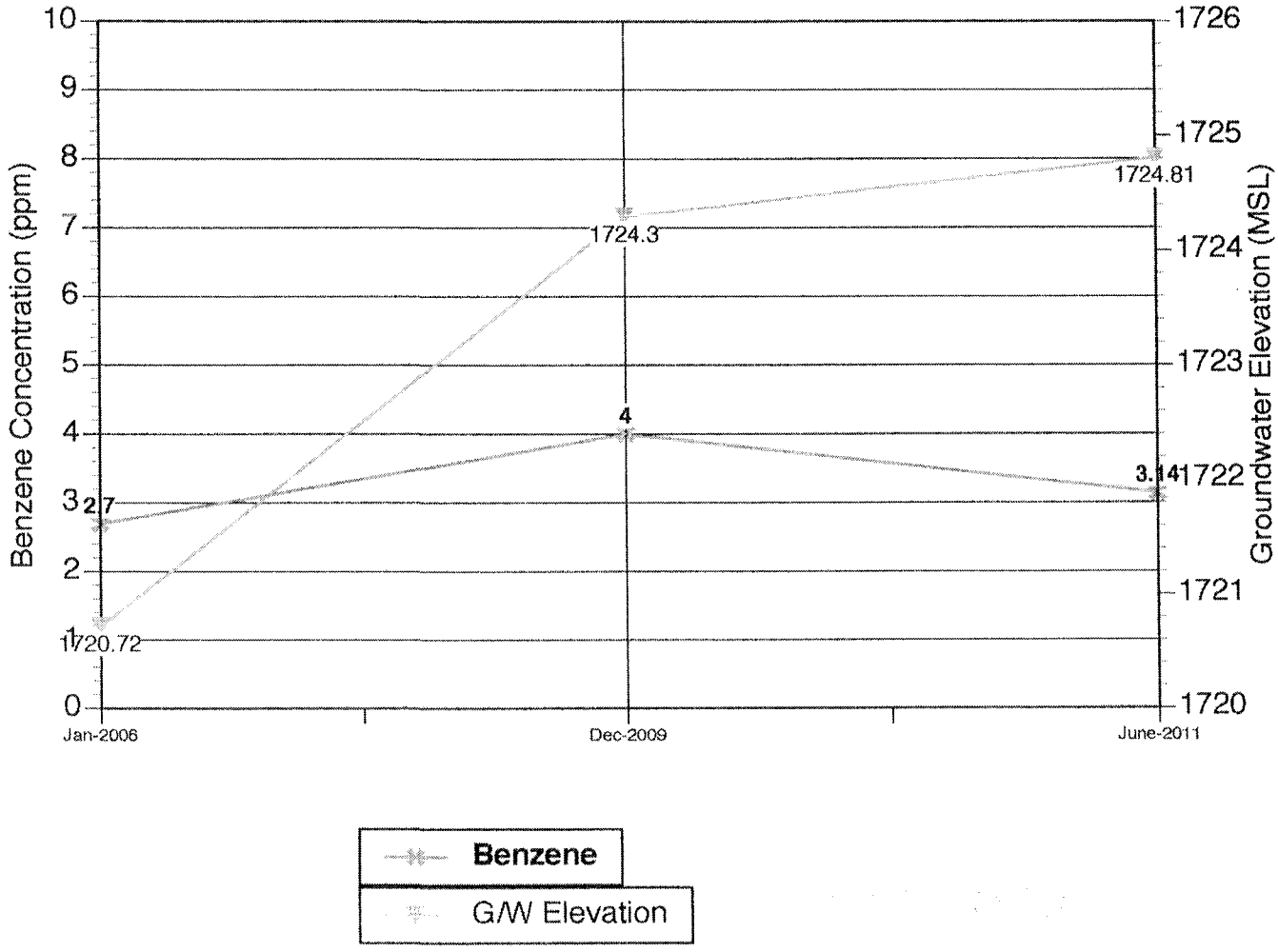
MW-3A



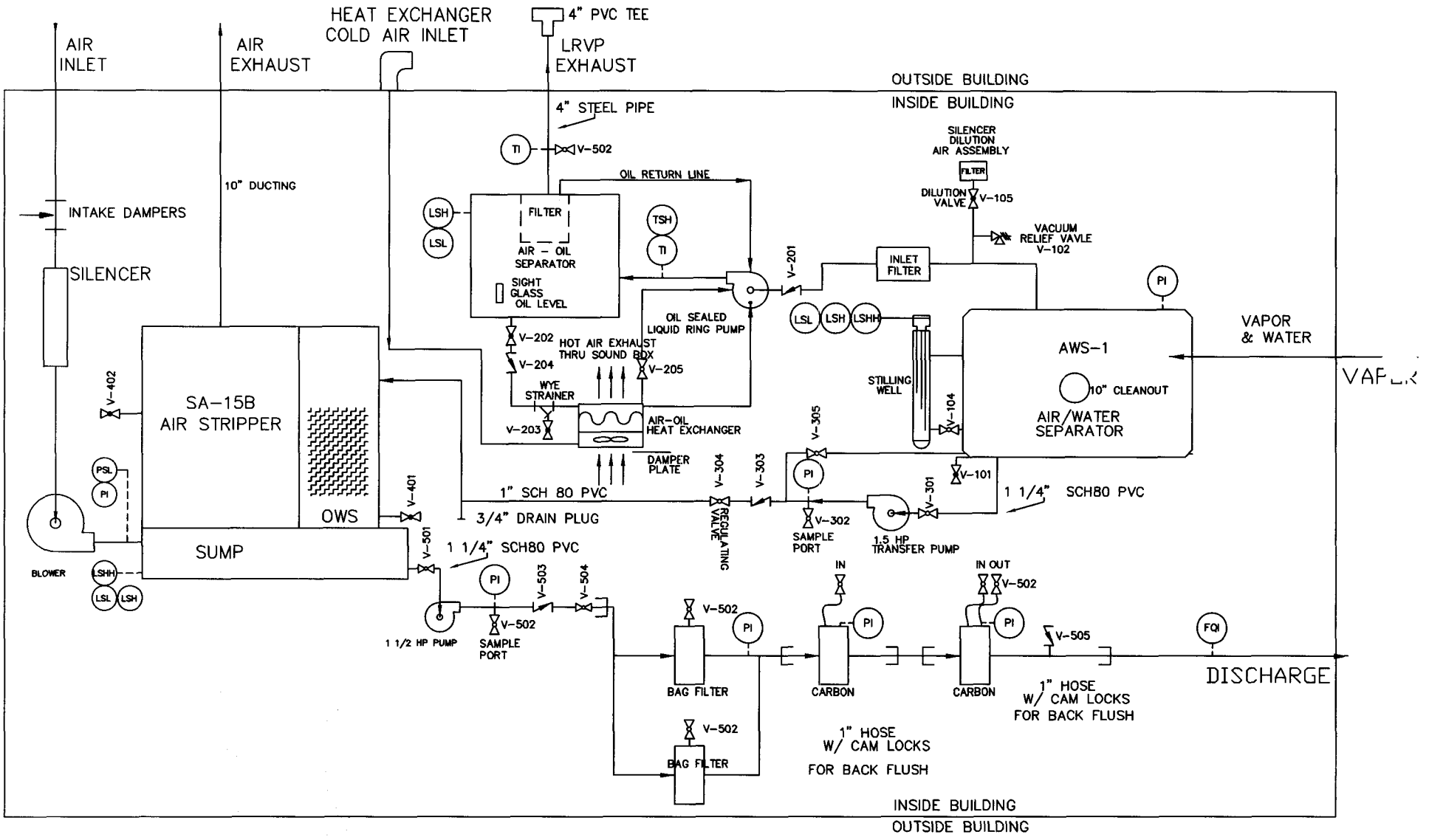
CROSSVILLE MOBIL (66)
Crossville, Tennessee
Facility I.D. #4-180042

Site Status Monitoring
6/1/11

MW-5A



Appendix B

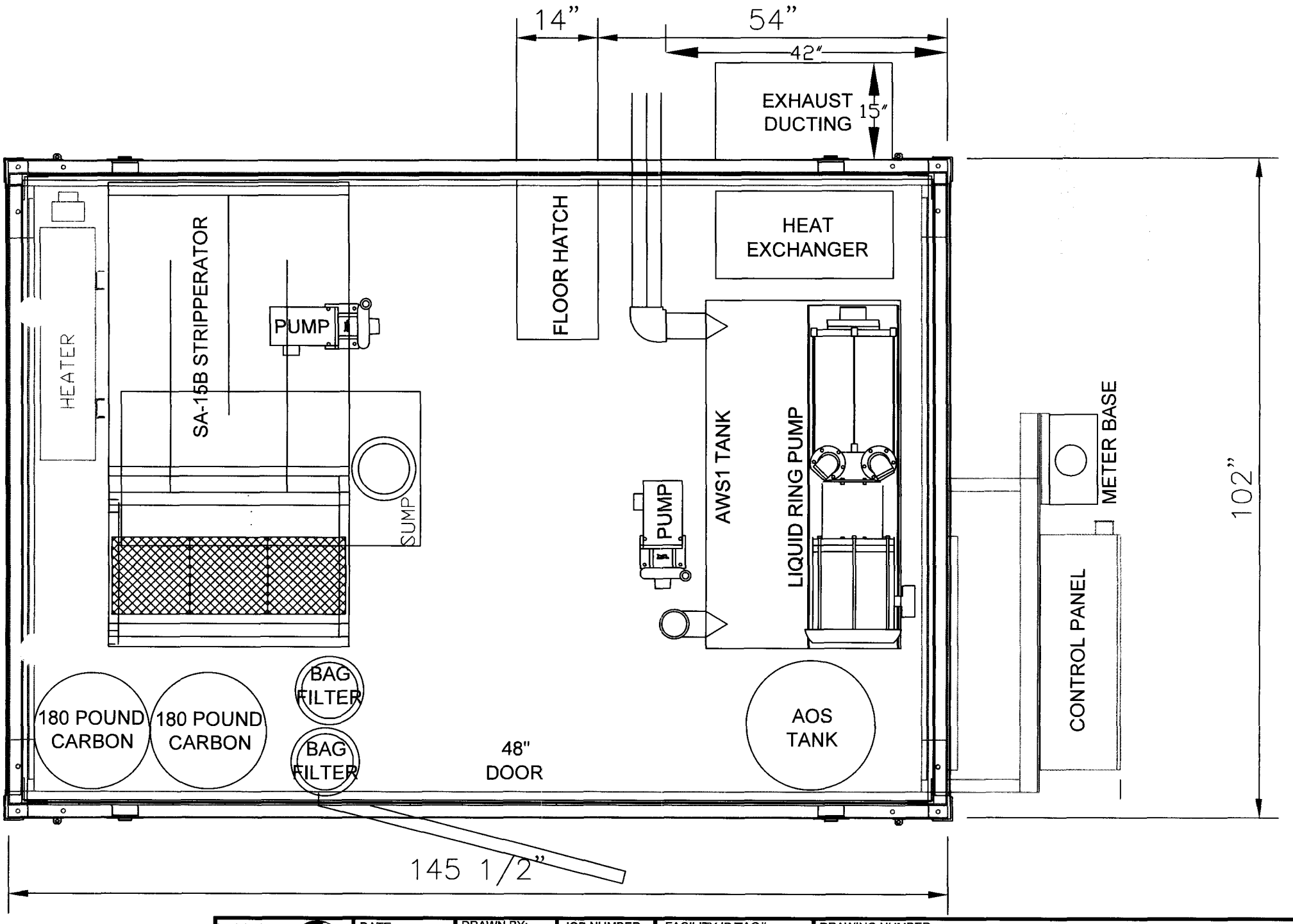


LABEL	DESCRIPTION	VALVE TYPE	LABEL	DESCRIPTION	VALVE TYPE	LABEL	DESCRIPTION	VALVE TYPE	LABEL	DESCRIPTION	VALVE TYPE	LABEL	DESCRIPTION	VALVE TYPE
V-101	AWS-1 DRAIN	1" BALL VALVE	V-201	AIR/OIL FLOW CHECK	4" CHECK VALVE	V-301	AWS-1 PUMP ON/OFF	1-1/4" BALL VALVE	V-401	OWS DRAIN	1" BALL VALVE	V-501	SUMP PUMP ON/OFF	1-1/4" BALL VALVE
V-102	VACUUM RELIEF	2" VACUUM RELIEF	V-202	SEAL OIL ON/OFF	4" BUTTERFLY	V-302	INFLUENT SAMPLE PORT	1/4" BALL VALVE	V-402	AIR STRIPPER DRAIN	1" BALL VALVE	V-502	EFFLUENT SAMPLE PORT	1/4" BALL VALVE
V-103		1/4" BALL VALVE	V-203	1/2" SEAL OIL DRAIN	1/2" BALL VALVE	V-303	AWS-1 CHECK VALVE	1" BALL CHECK				V-503	SUMP CHECK VALVE	1" BALL CHECK
V-104	STILLING WELL ON/OFF	1" GATE VALVE	V-204	SEAL OIL CHECK VALVE	1" SWING CHECK	V-304	AWS-1 FLOW REGULATOR	1" BALL VALVE				V-504	SUMP FLOW REGULATOR	1" BALL VALVE
V-105	DILULTION VALVE	2" BALL VALVE	V-205	SEAL OIL VENT VALVE	1/4" BALL VALVE	V-305	AWS-1 RECIRCULATION	1/2" BALL VALVE				V-505	ANTI-SIPHON VALVE	3/4" VAC RELIEF

VACUUM	I	INDICATOR	
PRESSURE	FQI	FLOW QTY IND. (TOTALIZER)	
SWITCH	FRI	FLOW RATE INDICATOR	
LIQUID LEVEL OR LOW T		TEMPERATURE	

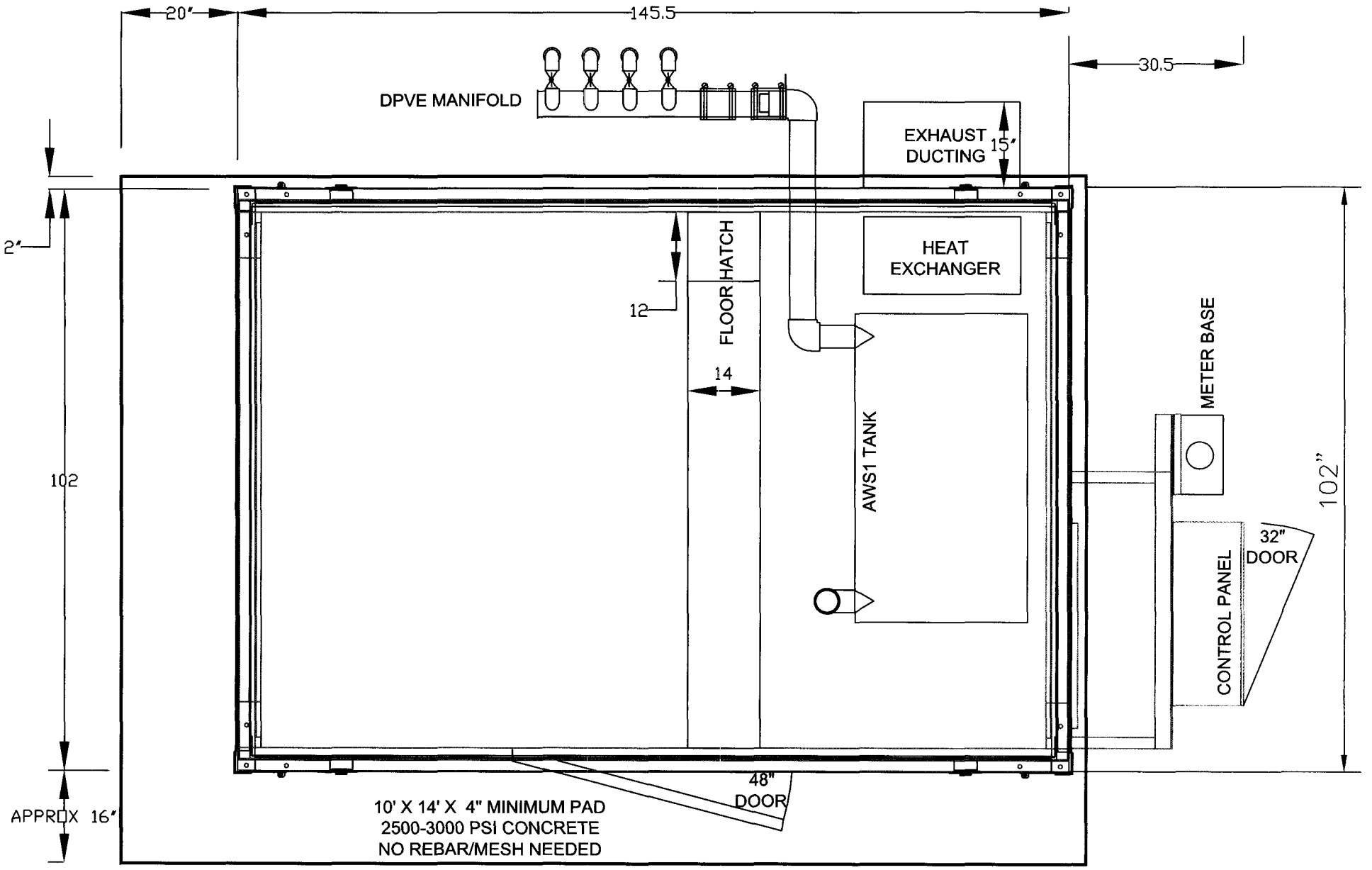
MK ENVIRONMENTAL INC.

DATE:	DRAWN BY:	JOB NUMBER	FACILITY ID/TAG#	DRAWING NUMBER
9/2/09	EHT	XXXXX	XXXX XXXXX	P&ID TDEC STANDARD CAS

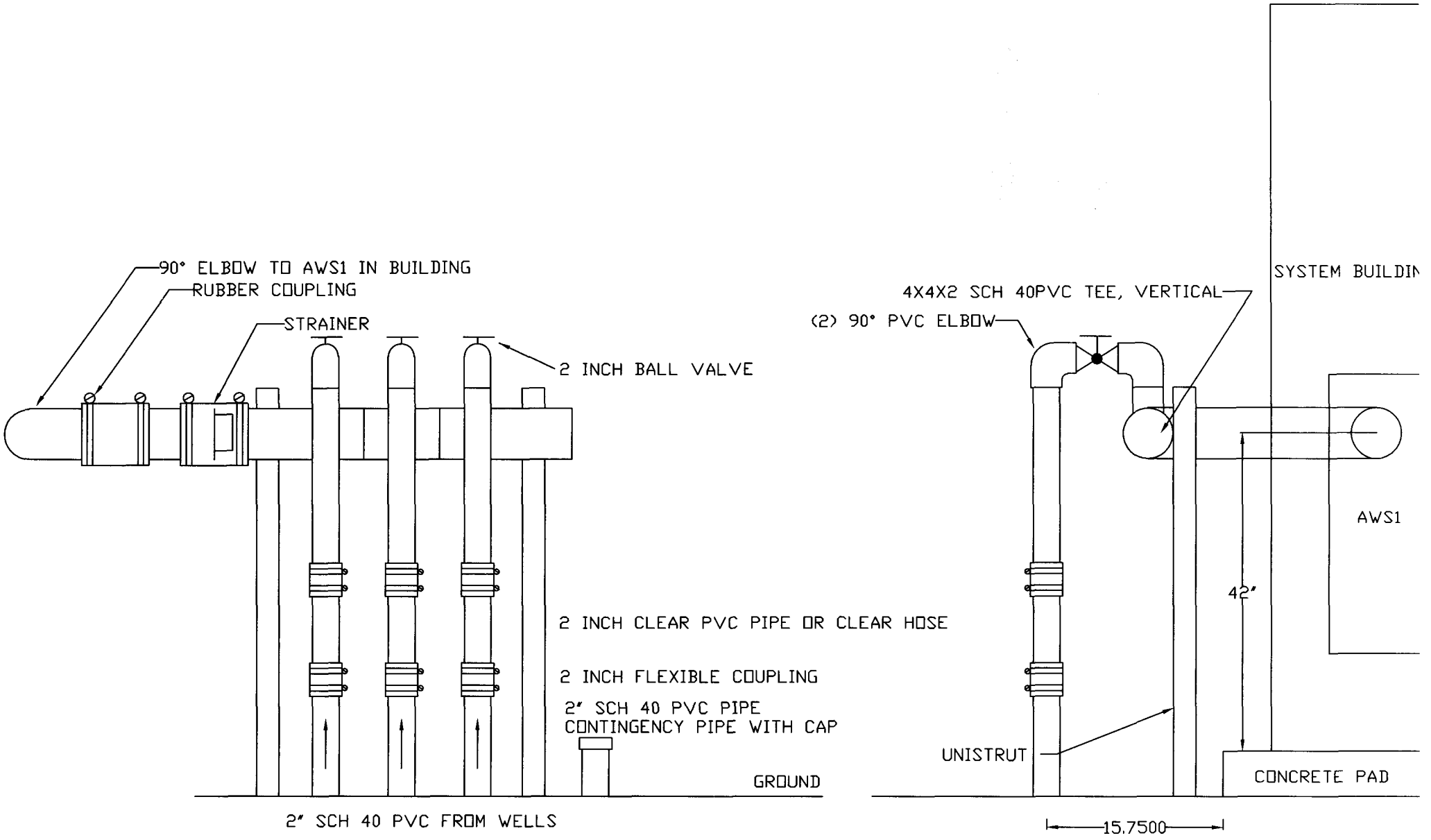


MK ENVIRONMENTAL INC.	DATE: 9/2/09	DRAWN BY: EHT	JOB NUMBER XXXXX	FACILITY ID/TAG# XXXX XXXX	DRAWING NUMBER

CAS LAYOUT
TDEC STANDARD CAS

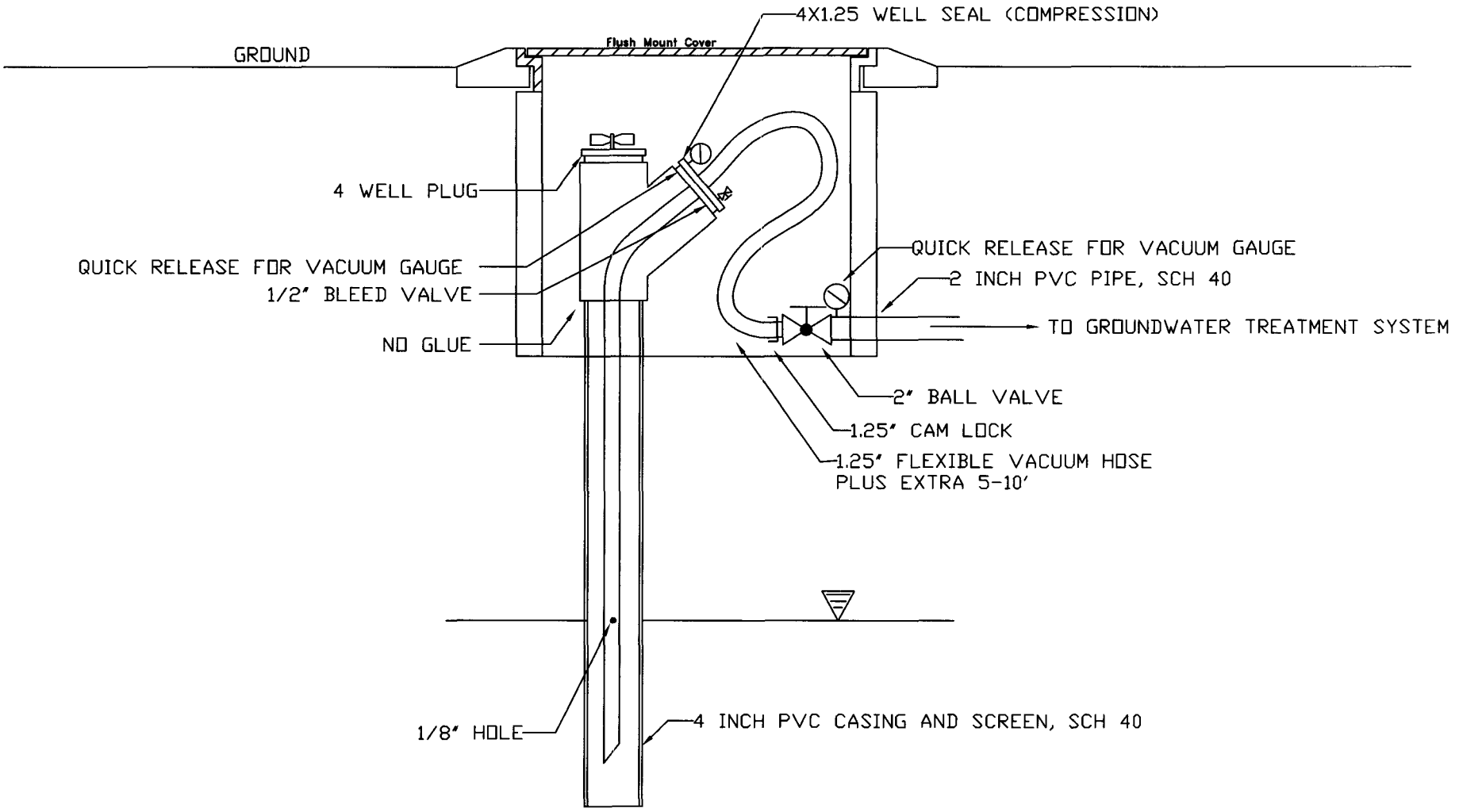


MK ENVIRONMENTAL INC.	DATE:	DRAWN BY:	JOB NUMBER	FACILITY ID/TAG#	DRAWING NUMBER	
	9/2/09	EHT	XXXXX	XXXX XXXX		CONCRETE PAD TDEC STANDARD CAS

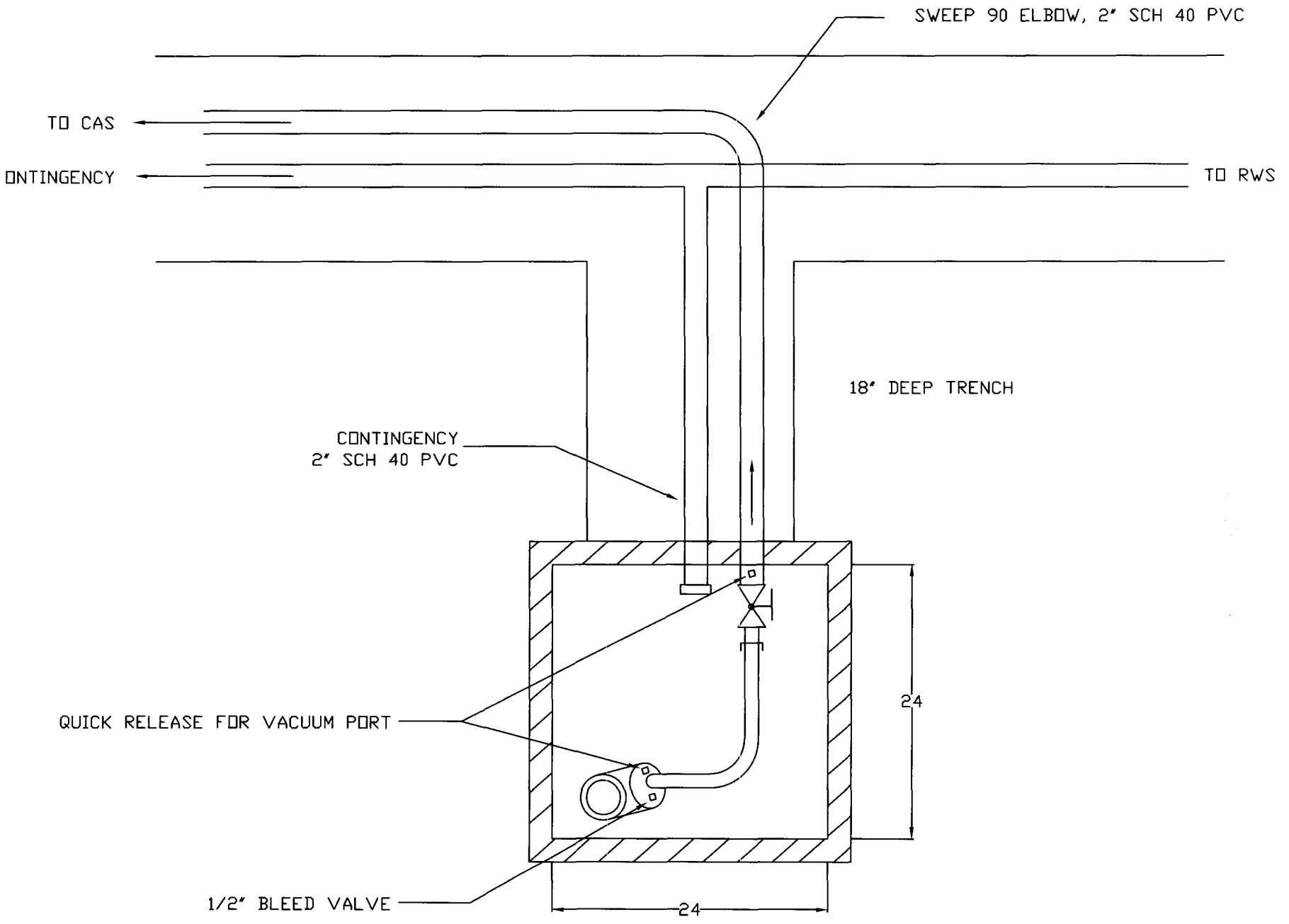


MK ENVIRONMENTAL INC.	DATE:	DRAWN BY:	JOB NUMBER	DRAWING NUMBER
	9/2/09	EHT	23318	

CAS INLET PIPING MANIFOLD
TDEC STANDARD CAS



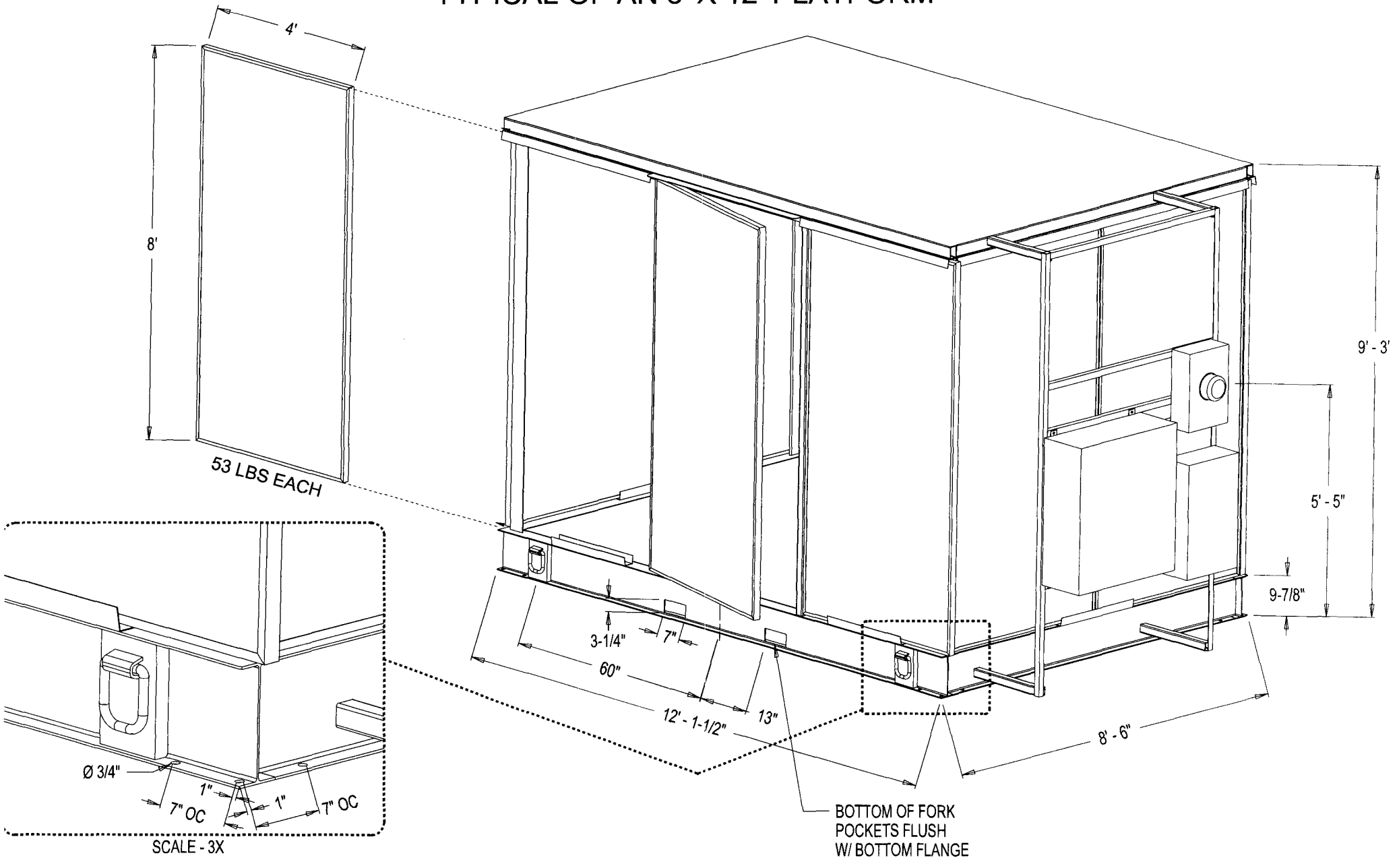
MK ENVIRONMENTAL INC.	DATE:	DRAWN BY:	JOB NUMBER	DRAWING NUMBER
	9/2/09	EHT	23318	WELL HEAD MANIFOLD AND WELL VAULT TDEC STANDARD CAS



MK ENVIRONMENTAL INC.	DATE:	DRAWN BY:	JOB NUMBER	DRAWING NUMBER
	9/2/09	EHT	23318	WELLHEAD MANIFOLD AND WELL VAULT (TOP VIEW) TDEC STANDARD CAS

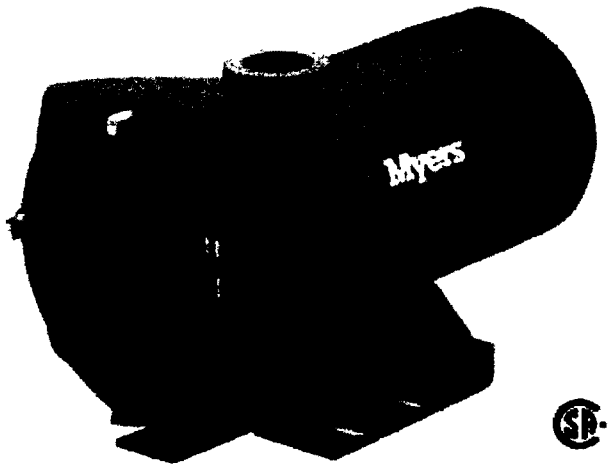
MK ENVIRONMENTAL ON-SITE PLATFORM

INSULATED, REMOVABLE WALL PANELS
TYPICAL OF AN 8' X 12' PLATFORM



CT Series

High Pressure Centrifugal Pumps
½ - 2½ HP
Heads to 140 Feet
Capacities to 95 GPM



MYERS CT SERIES LINE OF HIGH PRESSURE CENTRIFUGAL PUMPS PROVIDES QUALITY AT A COMPETITIVE PRICE. The complete line of ½ to 2½ HP units provide strong pressures up to 140 feet and flows up to 95 gpm.

The rugged cast iron body construction is available with either a corrosion resistant composite or brass impeller. The brass impeller unit is equipped with a high temperature, viton seal for more demanding applications. The heavy duty motor features a double ball bearing, 50° C ambient, dual voltage design for dependable service. The compact, back pullout design provides easy installation and serviceability.

The quality features of the CT series will provide dependable service for a wide variety of applications.

SPECIFICATIONS

HP	Catalog No. Composite Impeller	Catalog No. Brass Impeller	Pipe Tapping Sizes Suction (NPT)	Pipe Tapping Sizes Discharge (NPT)	Motor Voltage	Phase	Approx. Wt. Lbs.
½	CT05	CT05B	1¼"	1"	115/230	1	30
	CT053	CT05B3	1¼"	1"	208/230/460	3	30
¾	CT07	CT07B	1¼"	1"	115/230	1	32
	CT073	CT07B3	1¼"	1"	208/230/460	3	32
1	CT10	CT10B	1¼"	1"	115/230	1	35
	CT103	CT10B3	1¼"	1"	208/230/460	3	35
1½	CT15	CT15B	1¼"	1"	115/230	1	40
	CT153	CT15B3	1¼"	1"	208/230/460	3	40
2	CT20	CT20B	1½"	1¼"	115/230	1	57
	CT203	CT20B3	1½"	1¼"	208/230/460	3	57
2½	CT25	CT25B	2"	1½"	115/230	1	62
	CT253	CT25B3	2"	1½"	208/230/460	3	62

ADVANTAGES BY DESIGN

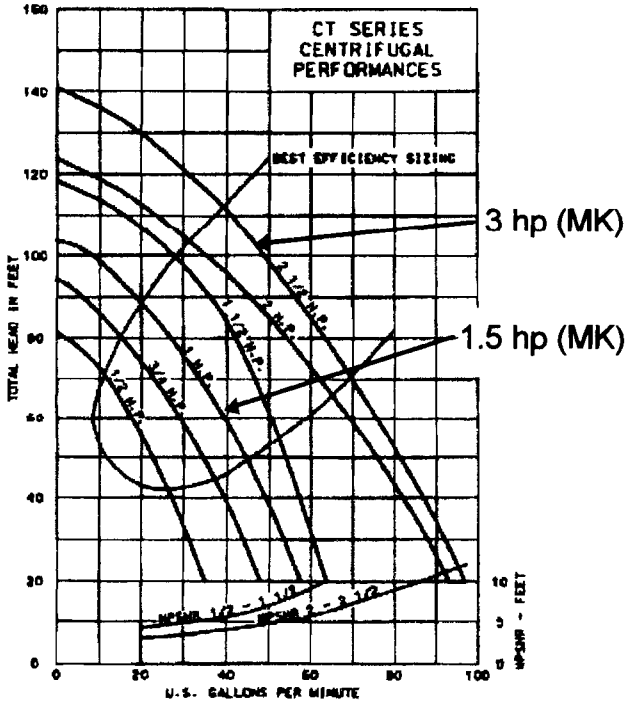
- Heavy duty cast iron construction.
- Back pull-out design.
- Dependable double ball bearing motor
- Continuous duty rating motor.
- Choice of brass or composite impeller.
- Brass impeller pumps rated 212° F.
- Composite impeller pumps rated 140° F.
- Maximum working pressure of 125 psi.
- CSA listed.

Applications

- Booster service
- Irrigation
- Circulating
- Cooling towers
- Air conditioning
- Liquid transfer
- Sprinkling systems
- General industrial service

Note: MK Environmental uses oversized pump motors. See below

PUMP PERFORMANCE



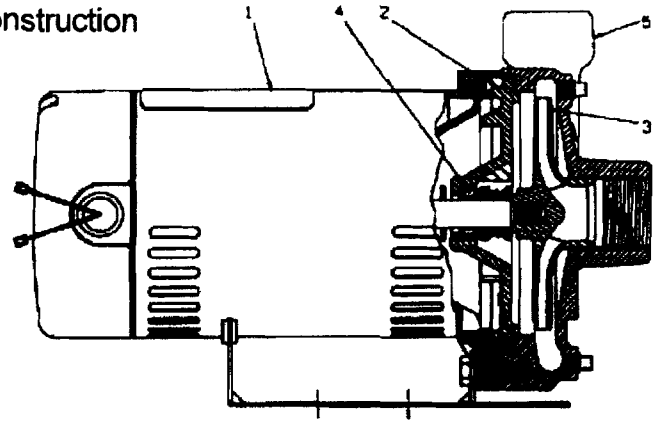
WHERE INNOVATION MEETS TRADITION

Myers
ISO 9001 Certified Company

CT Series

High Pressure Centrifugal Pumps
½ - 2½ HP
Heads to 140 Feet
Capacities to 95 GPM

1. **MOTOR** MK standard is TEFC construction
   - NEMA standard
   - Double ball bearing
   - Open drip proof
   - 60 Hz. 3450 rpm
   - Stainless steel shaft
   - Single phase with built-in overload protection
   - Three phase require overload protection in starter unit
   - Non-overloading
   - Continuous duty
   - Strong capacitor start design

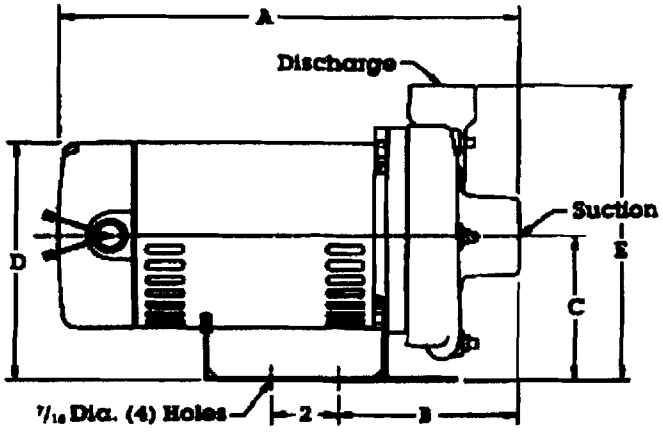


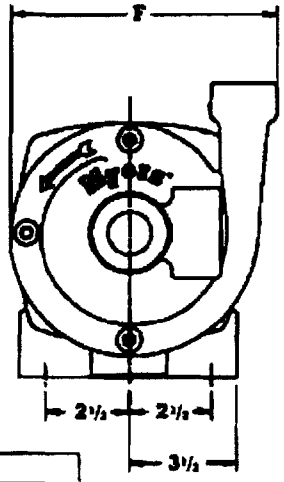
2. **SEAL PLATE**
   - Heavy duty cast iron for dependable service and long life

3. **IMPELLER**
   - Reinforced composite for applications to 140° F.
   - Threaded SST insert on composite impellers
   - Brass for applications to 212° F.
   - Enclosed design for high efficiencies
   - Balanced for smooth operation

4. **MECHANICAL SEAL**
   - Standard carbon/ceramic faces, Buna elastomers, 300 series SST components (standard for pumps with composite impellers)
   - High temperature carbon/ceramic faces, viton elastomers, 300 series SST components (standard for pumps with brass impellers)

5. **CASING**
   - Heavy duty cast iron construction
   - Back pull-out design
   - Discharge can be rotated in four positions
   - Tapped openings for priming, venting and draining.
   - Vertical discharge standard





HP	Dimensions, inches							
	A	B	C	D	E	F	Suct.	Disch.
½	13⅞	5½	4⅜	7¼	9	8	1¼	1
¾	14⅝	5½	4⅜	7¼	9	8	1¼	1
1	15⅛	5½	4⅜	7¼	9	8	1¼	1
1½	15⅛	5½	4⅜	7¼	9	8	1¼	1
2	16½	6¼	4½	7½	9½	8⅞	1½	1¼
2½	16½	6¼	4½	7½	9½	8⅞	2	1½

3. OIL SEALED LIQUID RING SYSTEM – EXTRACTION PROCESS

This remediation system uses an Oil Sealed Liquid Ring Pump to extract groundwater and soil vapors into the treatment building. Oil Sealed Liquid Ring Pumps are advantageous because they can achieve the high level of vacuum required, they are extremely reliable, and they require very little maintenance – primarily due to no metal-to-metal contact between the impeller and the pump housing. Oil sealed liquid ring systems use a special mineral oil for the sealing fluid instead of water. The oil is re-circulated in a closed loop process with an oil-air heat exchanger to keep oil temperatures between 150-170°F. The Air / Water separator tank (AWS-1) separates the recovered groundwater from the vapors and accumulates the water until a level probe activates the transfer pump. There is a sight glass for visual verification of water level. The transfer pump sends the effluent to the treatment side of the building into a Stripperator Assembly for further processing. See **Figure 2** for an illustration and listing of the Liquid Ring Vacuum Extraction components.

3.1 EXTRACTION SYSTEM COMPONENT LAYOUT AND LISTING

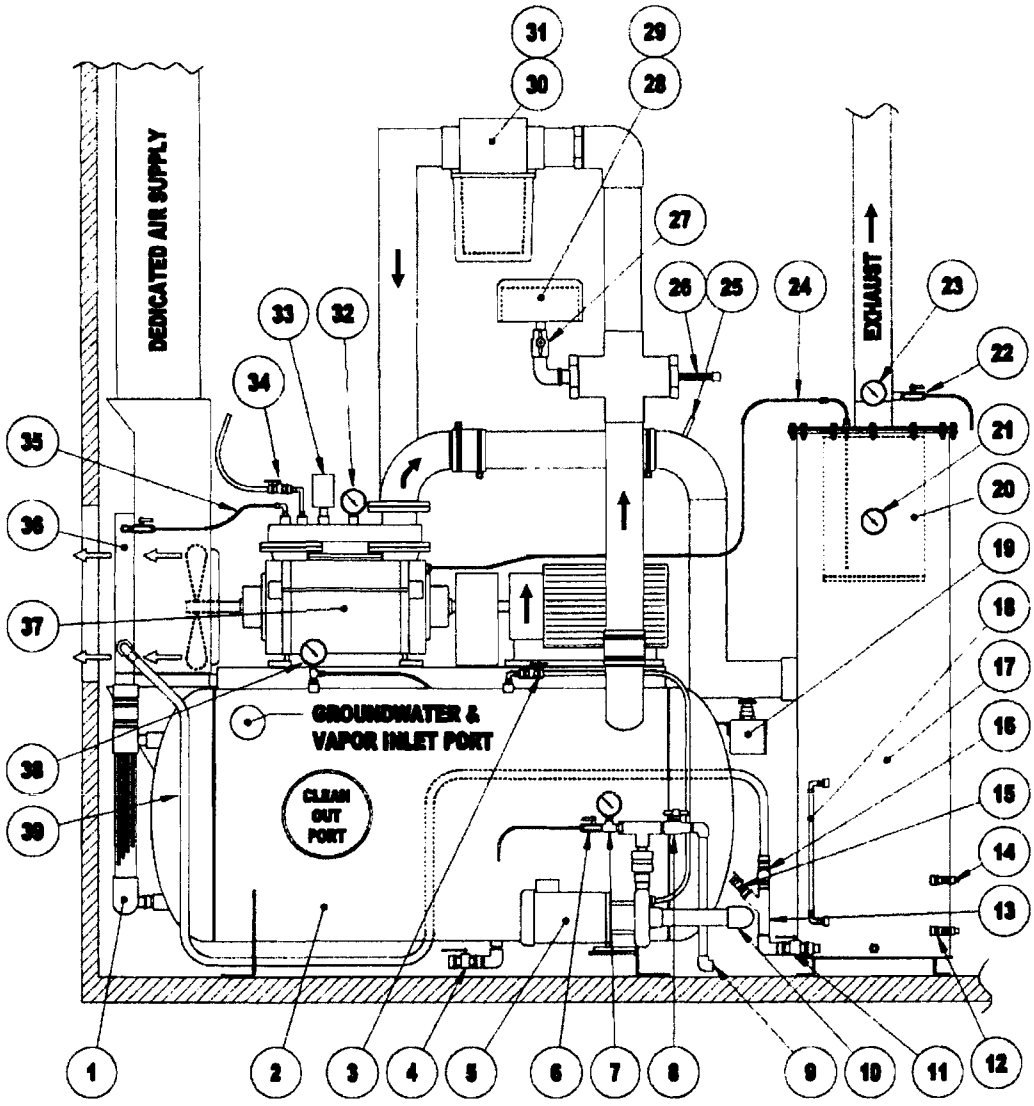


FIGURE 2 - VACUUM EXTRACTION - COMPONENT LISTING

1. Stilling well assembly / Transfer pump controls	14. High oil float switch	27. Dilution air regulation valve
2. Air / Water separator tank AWS-1	15. Seal oil drain	28. Filter/Silencer assembly
3. AWS-1 effluent transfer pump anti air lock line	16. Oil check valve	29. Dilution air filter
4. AWS-1 drain valve	17. Air/Oil separator tank AOS	30. Inlet air particulate filter/housing assembly
5. AWS-1 Effluent transfer pump	18. Sight glass	31. Inlet air filter
6. AWS-1 Transfer pump sample port	19. Emergency stop button (E-Stop)	32. Seal oil temperature gauge
7. AWS-1 Discharge pressure gauge	20. AOS filter	33. High oil temperature switch
8. AWS-1 Discharge throttling valve	21. AOS pressure gauge	34. Oil fill assembly
9. Line to oil/water separator	22. Effluent air sample port	35. Liquid ring pump anti air lock
10. AWS-1 transfer pump suction	23. Effluent air temperature gauge	36. Air/Oil heat exchanger
11. Seal oil on / off valve	24. Scavenge line	37. Liquid ring pump & motor assembly
12. Low oil float switch	25. AOS lid storage peg	38. System pressure gauge – indicating operating vacuum
13. Oil strainer (also referred to as wye strainer)	26. Vacuum relief valve	39. Seal oil supply line

S.S. PUMPS
CAPACITY : –10%

WATER
59 °F – 15 °C
1013 mbar

10%

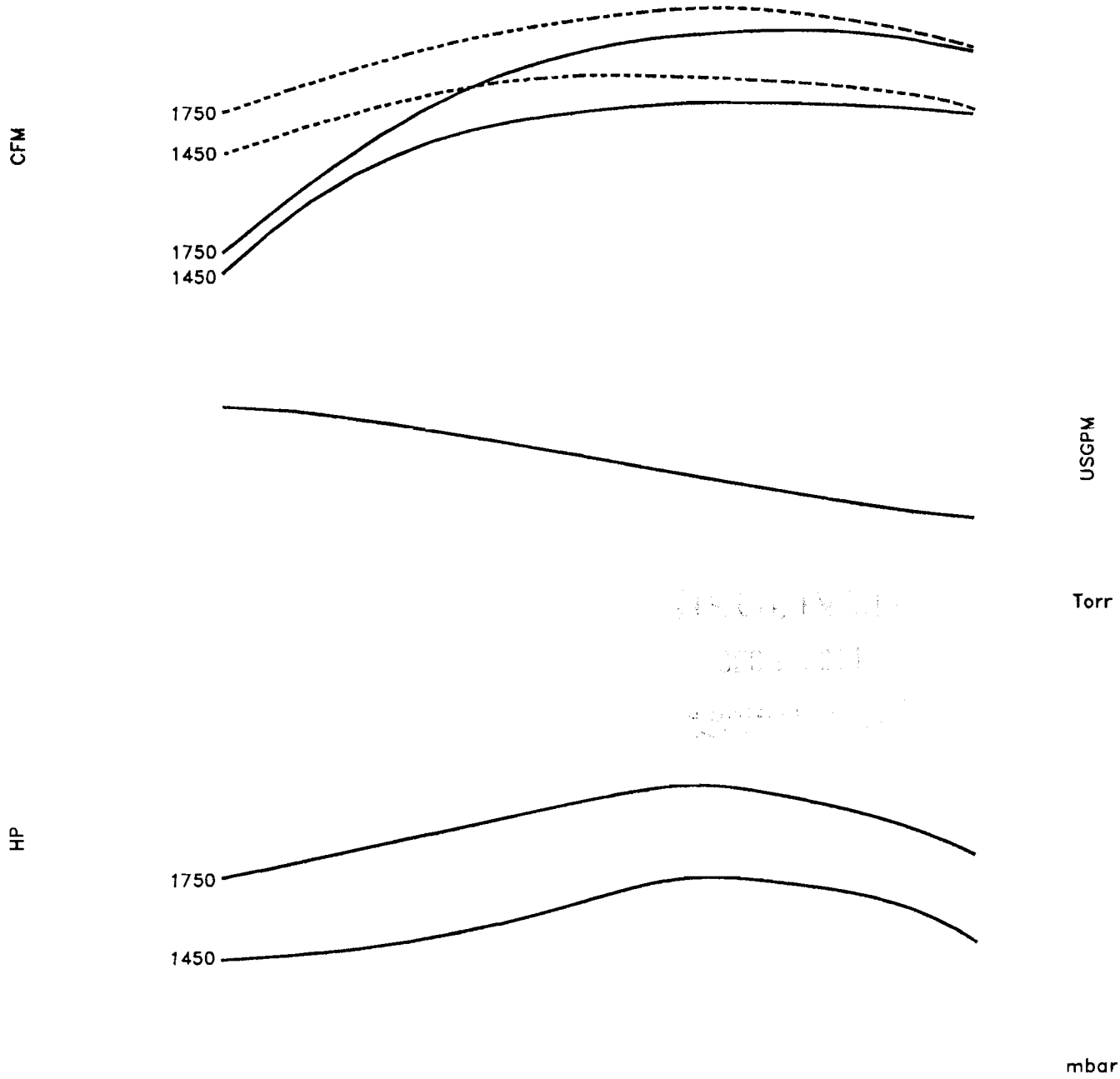
PERFORMANCE DATA
LIQUID RING VACUUM PUMP

TRVA 65–450

mm Hg

Inches Hg

1750
1450 RPM



TRAVAINI PUMPS USA